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ABSTRACT

This symposium describes the development and initial use of an assessment center for men in mid-career and middle life. This assessment was designed for use in the Management Progress Study, the long-term research started 20 years ago using subjects who were men entering telephone company management. (AT and T). These same subjects were assessed eight years later, and are now (1977) being assessed again. Four of the symposium participants outline the dimensions of personality that are being studied, describe techniques whereby they are assessed, and report on some preliminary findings. Finally, the discussant evaluates the content of the symposium. Section one: (1) Introductory Remarks, (2) Dimensions and Group Techniques; (3) Individual Techniques; (4) Preliminary Projective Test Findings, (5) Predictions for Individuals, and (6) Comments by Discussant. An accompanying set of slides is not included. (Author)

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AN ASSESSMENT CENTER FOR MID-CAREER AND MIDDLE LIFE

APA Annual Convention

August 28, 1977

CG 012 221

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AN ASSESSMENT CENTER FOR MID-CAREER AND MIDDLE LIFE

Symposium: APA Annual Convention

August 28, 1977

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Predictions for Individuals

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An Assessment Center for Mid-Career and Middle Life

Introductory Remarks

Donald W. MacKinnon

University of California at Berkeley

This is a symposium on an Assessment Center for Mid-Career and Middle Life. The first assessment center in the United States was conducted at the Harvard Psychological Clinic in the 1930's. The procedure was not then called an assessment center, however, and it would be more than a decade before the term "assessment" would be used to describe what went on there. In that pioneering effort at Harvard, Henry Murray developed a method for the psychological evaluation of individuals through testing and observing them in a variety of group settings with a multiplicity of tests and procedures by a number of staff members or assessors. In the Harvard Psychological Clinic the method was employed as a research tool for the intensive study of the personalities of men of college age. When World War II came along, the Office of Strategic Services was seeking a way to identify those with the potential to serve overseas in irregular warfare. The promise of the method for just such a practical purpose was recognized and an assessment program and a variety of assessment centers were established in the OSS.

Assessment centers in industry, modeled in part after the assessment centers of the Harvard Clinic and the OSS, have for the most part emphasized the practical uses of assessment for the operational goals of selecting persons best qualified to function as managers. The striking exceptions to this general rule have been the assessment center designed by Douglas Bray to study the growth and development of managers in the Bell Telephone System, the now famous Management

Progress Study. The assessment centers of this Study have made significant contributions to our understanding of what goes on in the lives of men and what changes occur in their personalities, their attitudes, their values, their goals and aspirations as they pursue careers in management. The study has also made important contributions to the methodology of assessment through testing the validity of its operations and through modifying procedures and developing new ones to meet the changing requirements of assessing the same person over a considerable span of years.

What some of these contributions have been we shall hear this afternoon from our speakers as they describe the latest assessment center, one designed to assess once again subjects of AT&T's Management Progress Study, men now in their mid-career and middle life. Interest in middle life and mid-career is now running very high. More and more psychological investigators and others are turning attention to this period of the life span, and books dealing with the subject rank high on lists of best sellers. Many of these writings are reminiscent of the earlier somewhat speculative literature on managerial personnel and potential antedating the now widespread assessment of managerial persons. This symposium thus is very timely since it describes the development and initial use of an assessment center for men in mid-career and middle life.

Subjects of the Management Progress Study, first assessed at the time of entry into management twenty years ago, are now in their mid-forties and experiencing the pressures of reaching occupational and economic plateaus, aging parents and in-laws, the departure of children and, not least important, their own aging. The findings of the assessment center on such topics as these and the description of the techniques used to study them should be of interest to busi-

ness managers and to students of personality alike. The presentations this afternoon will outline the dimensions of personality that are being studied, describe techniques whereby they are assessed, and report on some preliminary findings.

In order that once the symposium gets underway the presentations will not have to be interrupted by my introducing the following speakers, I'd like to introduce them all now briefly to you and they will give way one to another as we run through the program. The first speaker this afternoon is going to be Douglas W. Bray. He is currently, as you know, Director of Basic Human Resources Research at AT&T. And I'm delighted to report to those of you who were not at the meeting yesterday, that Division 14 made this year its first presentation of its Professional Practice Award. That award was granted to Douglas Bray for the work which he has done in the Management Progress Study and associated enterprises.

I'm delighted to be able to introduce the second speaker, Ann Howard. She's been on this program from the minute it was first conceived, but when TIP (The Industrial-Organizational Psychologist) published its program for these meetings, her name was not there, and I had a moment of fear that she had withdrawn. So I was delighted when I got here to learn that she is here and is participating. She is not as old a hand at assessing as Doug Bray and the other members of the panel, but she has learned very rapidly indeed. There's probably nobody who has surveyed with more insight and more understanding the assessment center method and its results, weaknesses, and its strengths than she did in a paper published just three years ago entitled "An Assessment of Assessment Centers," which is already a classic in the field.

The next two speakers are persons who have taken time from the main course of their professional lives to participate in the Management Progress Study over the years. The first of these is Walter Katkovsky, who is Professor of Psychology and Director of the Psychological Clinic, Northern Illinois University. The fourth and final speaker will be Joseph F. Rychlak, Professor of Psychology, Purdue University.

I'll introduce also at this time the person who is going to be the discussant so that when the presentation is finished he can take over immediately. I hope there will also be time for all of you to add any comments you wish. The discussant is Abraham K. Korman, who is Professor of Psychology at the Bernard Baruch College of the City University of New York. He is an ideal selection as a discussant of this program not only because of his years of work and general competence in the field of industrial and organizational psychology, but as the author of the chapter in this year's Annual Review reporting on personnel attitudes and motivation. We are lucky and fortunate in having him as our discussant.

Now I'll turn things over to Douglas Bray.

An Assessment Center for Mid-Career and Middle Life

Dimensions and Group Techniques

Douglas W. Bray

American Telephone and Telegraph Company

The main purpose of this Symposium is to describe a new application of the assessment center method, one focused on mid-career and middle life, not to present exhaustive data or comprehensive findings. We have not yet gone far enough with it to warrant definitive statistical results. The following three speakers will, however, present some preliminary outcomes which will, we hope, show you some of the possibilities once more data are at hand.

As Dr. MacKinnon has told you, this assessment was designed for use in the Management Progress Study, which is our long-term longitudinal research started over twenty years ago. The subjects of the Study are men who entered telephone company management in the middle and late 1950's. (In those days few women were expected to reach middle management, and so they were not included in the sample. We are, however, starting a new Management Progress Study this year, and women and minority groups will be well represented.) The subjects we will talk about today were all college graduates at the time of employment. The first of our non-college participants will be assessed in 1978.

As the twenty-year mark approached and it was clear that we really would reassess our participants, we decided that one more pure management assessment center was not the best way to expend our time and resources. We

already knew a great deal about these men as managers from the two assessments they had undergone and from years of intervening interviewing of them and their supervisors. In addition, the great recent interest in middle life which Dr. MacKinnon has mentioned, coupled with the fact that our average subject was now in his forties, propelled us in the direction of devising an assessment center which would be tailored to the middle years while not overlooking further evaluation of the participants as managers. (As an aside, I'd like to remind all of you that our distinguished Chairperson, Donald MacKinnon, was a key figure in both the original Harvard Psychological Clinic assessment center and in those conducted by the OSS during World War II.)

Our purposes in developing this assessment center were as follows:

- To evaluate the work motivation, company commitment, career satisfaction, and retirement proneness of mid-career managers

- To measure changes in their abilities, attitudes, and personality characteristics over a 20-year span and explore the reasons for those changes

- To assess the effects on them of plateauing promotional and salary opportunities, affirmative action, and outside pressures on and challenges to the Bell System

- To appraise the quality of life in the middle years - its rewards and hazards, and possible crises and reorientations

- To develop an assessment center procedure for the study of middle life

The new assessment center, like all assessment centers, is organized around a number of dimensions, in this case 47, an ambitious, if not foolhardy, number. Twenty-six of these dimensions are repeated from the assessment centers conducted at the start of the Study and eight years later. They are:

Administrative Skills
- Organizing and Planning
- Decision Making
- Creativity

Interpersonal Skills
- Leadership Skills
- Oral Communication Skills
- Behavior Flexibility
- Personal Impact
- Social Objectivity
- Perception of Threshold Social Cues

Intellectual Ability
- General Mental Ability
- Range of Interests
- Written Communication Skill

Stability of Performance
- Tolerance of Uncertainty
- Resistance to Stress

Work Motivation
- Primacy of Work
- Inner Work Standards
- Energy
- Self-Objectivity

Career Orientation
- Need for Advancement
- Need for Security
- Ability to Delay Gratification
- Realism of Expectations
- Bell System Value Orientation

Dependency
- Need for Superior Approval
- Need for Peer Approval
- Goal Flexibility

We added 21 new dimensions to the original 26 in order to address ourselves more specifically to mid-career and middle life. Here they are:

Work Satisfaction
- Job Satisfaction
- Career Satisfaction
- Retirement Proneness

Financial Concerns
- Absence of Financial Worries
- Financial Motivation

Family Concerns
- Stability of Marriage
- Marital Satisfaction
- Absence of Familial Worries

Philosophical Attitudes
- Conservatism
- Cynicism
- Involvement
- Religiosity

Self Concerns
- Avocational Interest
- Self-development
- Escapism
- Adjustment
- Happiness
- Feelings of Crisis
- Concern with Health
- Concern with Aging
- Selfishness

The new assessment center, like most assessment centers, utilizes both group and individual techniques. My role today is to describe the group techniques, while Dr. Howard will present the individual techniques. All of the new designs were developed by Dr. Howard and myself, with assistance on the projective devices from Dr. Katkovsky and Dr. Kerry Bunker of AT&T.

Both group techniques are leaderless group discussions, without assigned individual roles, for six persons. The first of these is called "The Being who Fell to '195'". (The corporate headquarters of AT&T is at 195 Broadway.) The instructions are as follows:

> In another universe there is a planet whose inhabitants are particularly expert in telecommunications. Having received crude searching signals from Earth, the inhabitants of the planet decided to send one of their beings to share their technical knowledge and to learn more of civilization and human life here. They chose to place their representative in the position of Chairman of the Board of the most effective communications system on Earth, the Bell System.
>
> The Being who fell from outer space to Earth has now assumed the Chairman's job at '195'. Its first task is to find out what life in the Bell System is really like. Its curiosity about the technology is minimal, since that on its planet is far superior. The knowledge it seeks is the way human beings work together to achieve organizational goals.
>
> The Being has reviewed organization charts and other written documents but found that they don't really illustrate the human component of the company. What it now wants to understand is how things really get done, how people relate to one another, how authority and power are exercised, and how the humans who work for the organization think and feel about their lives at work.
>
> Your group has been selected to go to the new Chairman and tell it what it's really like to work as a manager in the Bell System. The Being is benevolent and has no intention of harming you; however, its highly developed powers of sensitivity and perception allow it to recognize immediately when the truth is sugar-coated, exaggerated, or deficient. You must discuss what you are going to present to the Chairman and make a written list of critical points for it to read as an outline. All members of your group must agree on and initial the outline.

Five areas of discussion are suggested to the group and they are given one hour and forty minutes for their deliberations. They are observed by two assessors and the discussion is tape recorded for later content analysis. The discussion areas are:

- Who reaches top management and how?

- How do those above know what those below think and feel?

- How are managers motivated and controlled?

- What's happened to good will and cooperation among managers?

- What's rewarding and what's stressful about being a Bell System manager?

The following short exerpt from the assessor report on one participant may give you the flavor of things we are getting:

> Mr. Green's depth of understanding of life in the Bell System was rated by the observers on a five-point scale as 2.5. His peers rated him 3.2, he rated himself 4. His contribution to group process was rated, again on a five-point scale, a 2 by the observers, 3.6 by his peers, and he gave himself a 4.
>
> Mr. Green expressed his opinions directly and clearly, often making use of colorful language--profanity, analogies, and slang terminology. Negativism permeated some of his responses, especially on the first question of who reaches management and how. He resented aspects of his own career and this resentment probably taints his attitudes toward higher management. He was of the opinion that the general character of top management leaves a lot to be desired. He declared that the idea that all candidates for sixth level are considered equally objectively for promotion is "bullshit". He described one promotional choice as crude, mouthy, demanding, and unpopular. He cited sponsorship and personal prominence, not necessarily performance, as factors in getting promoted, and so forth and so on. On the stress question, he said he had changed locations on the average of every two years and "That's too much." Another stress source was "some yardbird telling you what to do." On balance though, Green did not think that the stress on Bell System managers was unreasonable. He saw the competition and regulation facing the System as challenges not stressors, and he was very favorable toward company pay policy.

The "Being" exercise is obviously focused on the company--what people feel about it, how they are reacting to being managers themselves, how they view what's happening in the company, whether they're informed or misinformed,

right or wrong. The other group exercise is called "The Counselling Center", and directs the attention of the participants to various contemporary problems of living. Once again the exercise is for six participants and the time allowed is one hour and forty minutes. The instructions are as follows:

> You and your colleagues are a group of senior advisors in a Counseling Center. The Counseling Center is a community service and not connected with any industrial organization. Your job as a senior advisory group is to give recommendations to junior staff members who provide advice and guidance for individuals with various problems of living. Your group must come up with a written recommendation for each of the following cases. All members of your group must agree on and initial the recommendations.

The participants are given short descriptions of five different life problems. Boiled down, the five problems are:

- Should Stan relocate to company headquarters?
- Should Gene put his mother-in-law in a nursing home?
- What should Grace do about her husband's infidelity?
- Should John give his son his college money for a business venture?
- Should Dan marry career-oriented Sheila?

That list may sound like teasers to get you to tune in on the next episode of your favorite soap opera, but we have found that the participants jump into these discussion with interest and sometimes a good deal of heat. Here is a brief excerpt from one of the assesor reports:

> Mr. Red was rated very highly by the observers in his depth of understanding of the problems discussed, although he was only average in his contribution to group functioning. He was outstanding in his ability to generate a multitude of alternatives in nearly every case. He often recommended getting more information but was adamant that

counselors should not make decisions for clients, only present them with the pros and cons of alternatives. Even when he had strong personal preference for courses of action, he felt that he had no right to steer clients toward one solution or another. Although he presented many helpful suggestions and argued for his point of view, he did not attempt to take charge of the group nor did he volunteer to take notes or prepare any part of the report. A sample of his thinking comes from the Dan and Sheila career conflict case. Red again held back during the initial debate, then volunteered that they were missing some important information, such as what would happen if they had children and what did either of them really know about their future careers. He indicated that a confrontation concerning change of location might never come about at all. Also he wondered how permanent marriage needed to be. Thinking ahead 20 years, he suggested that Sheila's career might be out in front while Dan was still just scratching lower management. This last is perhaps a somewhat auto-biographical comment since Red is still at the second level of management after 20 years. If Dan's career were behind, Red suggested that it might be more important to him to help rather than hinder Sheila. He also wondered, however, whether Dan has that "male chauvinistic thing." Red seemed willing to consider many alternatives, including those that would be disagreeable to many.

The Counselling Center discussions are also being tape recorded and will be content analyzed for the social atitudes and values of our sample of middle-aged middle managers.

Dr. Howard will continue, presenting the individual techniques used in this new assessment center and a few of the preliminary findings.

An Assessment Center for Mid-Career and Middle Life Individual Techniques

Ann Howard

American Telephone and Telegraph Company

SLIDE 1

The 20-year assessment of the Management Progress Study participants is carried out in two stages. Phase I is a one-day session in which a number of tests and exercises the subjects took two or more times over the last 20 years are readministered. These exercises are scored and analyzed over the next few weeks in preparation for Phase II. The participants reunite in groups of six at a time for two days during Phase II. It is during this two-day session that new exercises emphasizing mid-career and middle life are administered. To date, 82 participants from two different telephone companies have completed Phase I, the repeated exercises, and I will present some of these comparisons across time. Results from Phase II, the new exercises, are presently available from only 31 participants in one telephone company since the Phase II assessment is still in progress in the second company. Eventually, we will have results from six telephone companies.

SLIDE 2

First, let's take a look at which exercises are repeated in MPS:20 Phase I. These include two cognitive tests, the SCAT aptitude test and the General Information Test. The latter is an updated version of the Contemporary Affairs Tests which were given in the earlier two assessments. The two measures of job attitudes were administered annually during the years between the first assessment and the reassessment eight years later. The Management Questionnaire measures attitudes toward the job and the telephone company as a place to work. The Expectations Inventory has 56 statements describing various situations in which each participant may find himself. In the early years of the study each

man responded to indicate what he expected to be true by the fifth year of the Study; since that time participants have indicated what is presently true.

SLIDE 3 A number of exercises measuring personality and motivation characteristics were administered at the original assessment and readministered at the reassessment eight years later and at MPS:20 Phase I twenty years later. These included the Edwards Personal Preference Schedule, producing scores on 15 scales; the Guilford-Martin Inventory, which yields scores on the five GAMIN factors; the Survey of Attitudes Toward Life, a measure of the need for upward mobility; the Opinion Questionnaire, a version of the California F-scale; and the Q Sort, in which 70 cards with descriptive statements are sorted into 7 piles ranging from "Most like me" to "Least like me."

SLIDE 4 Three projective tests were also repeated in MPS:20 Phase I. Two of these were incomplete sentences tests—the Rotter Incomplete Sentences Blank, with stems of a general nature, and the Business Incomplete Sentences Test, with stems directed toward the business environment. In addition, six cards from the Thematic Apperception Test were administered for the third time.

As I mentioned previously, results from the exercises administered in Phase I were analyzed prior to each participant's assessment in Phase II.

SLIDE 5 This was done to prepare us for a new assessment exercise, the Feedback Interview. The Feedback Interview is something of an event in the history of the Management Progress Study, for this is the first time in 20 years of assessing and interviewing that the participants have received any kind of feedback whatsoever. The study is a confidential, pure-research study, and no results on individuals have ever been released to management or to the participants. Although we still will keep the results totally confidential with respect to management, we decided that a small amount of feedback to the participants after 20 years of being uninformed guinea pigs was indeed a small price to pay!

The feedback was a limited one, however, concentrating on changes in attitudes and self-concept over the 20-year period. It was included as a new technique in MPS:20 Phase II with two other major purposes in mind. First, we wanted to explore the strength and realism of each participant's job attitudes and self-concept. Second, in having him reflect on changes over time, we hoped to tie down causal attributions to help explain the change process.

SLIDE 6

Each individual Feedback Interview takes about one week to prepare (per participant). Analyzing the information from MPS:20 Phase I is only a small part of this process, for old data must be resurrected, reviewed, and compared with the new data. This summer our case review team included two clinical psychologists, five psychology graduate student interns, one file clerk, two secretaries, and two computer programmers!

The participants were interviewd every three years between the reassessment at year 8 and MPS:20. The first step in the preparation for the feedback was to have Dr. Rychlak summarize the interviews conducted in the 10th, 13th, 16th and 19th years of the Study to bring us up to date on what had happened to each man during this period of time. This interview summary for years 10 through 19 was then combined with information from the original assessment with a summary of interviews conducted during years 1 through 7, and with reassessment information from year 8 to provide a Case Review Outline. Thus the highlights of 20 years of each man's life, contained in our files by 5 one-inch binders of records per person, were collapsed into two pages or less. A third type of report prepared for the feedback interview by Dr. Katkovsky was a summary of the findings from the three projective tests given at MPS:20 Phase I--the two incomplete sentences tests and the TAT stories. These first

three reports on the slide were for the benefit of the case reviewers and feedback interviewers only; they were not fed back to the participants.

Several of the questionnaires from MPS:20 Phase I yielded scores that were fed back to the participants. The interviewer projected graphs onto a screen and marked each participant's scores on the graph with a grease pencil. The participant was then asked if he could relate to the scores, especially those that changed over time, and what he believed accounted for the changes shown. Graphs for scores from the two job attitude questionnaires, the Management Questionnaire and the Expectations Inventory, showed mean scores of Management Progress Study participants in the same telephone company during each of the first seven years of the Study and in the twentieth year of the Study. Scores on the self-concept measures (the Edwards, the GAMIN and the Survey of Attitudes Toward Life) were compared with more general Bell System norms. Each participant was shown his score on each self-concept scale from the three assessments. When a score was particularly high or low, or when there was a significant change in scores over time, item responses illustrating these scores were retrieved and fed back to stimulate the interviewee further.

In addition to exploring attitudes and the self-concept, the Feedback Interview was used as a vehicle to probe deeper into developments in the man's life with respect to job and career, home and family, and other aspects of the self. Changes in the responses to the incomplete sentences over the twenty year period often revealed shifting areas of attention and concern. Specific incomplete sentence responses were fed back during the interview to encourage the participant to talk about significant events in his life.

The attitude questionnaires and self-concept measures showed some group changes over time. Those that reached statistical significance and were characteristic of the men in both telephone companies studied so far will be presented. Comments from the feedback interviews of individuals responding to these same types of changes will illustrate the causal attributions put forth to explain these changes.

SLIDE 7 One scale from the Management Questionnaire is a global measure of attitudes toward the company. As can be seen on the graph, attitudes declined in favorableness over the period of 20 years. Of interest to us was the fact that the drop from the 7th year of the Study to the 20th year of the Study was statistically significant at $p < .01$, indicating that attitudes have continued in the less favorable direction in the early to mid-career period. The scores here should not be taken to indicate negativism toward the Bell System, since the mean score at the 20 year point is 9.8, and any score above 6 could be thought of as having more positive responses than negative responses. Attitudes were just less positive. Explanations of the drop in the General Management Attitude Scale over time included expressions of disdain about organizational politics and criticism of decisions made by top management.

Self-concept changes were revealed in 21 scales from 3 personality/ motivation questionnaires. Analyses of variance for repeated measures showed changes significant beyond the .001 level for four scales of the Edwards Personal Preference Schedule, one scale from the GAMIN, and the total score of the Survey of Attitudes Toward Life. Multiple comparison teniques showed that some of these changes were accounted for early in the 20 years, some later, and some rather continuously.

SLIDE 8

Need for achievement, as measured by the Edwards test, is shown here in comparison to the norm of 585 Bell System new college hires, tested in 1958. The normative sample is most like our Management Progress Study sample at the time of original assessment, and the graph shows that the mean score of our 82 participants at assessment was at the 59th percentile of the norm group. The average scores of these same 82 men on need for achievement went up over time, however; their mean score was at the 79th percentile of the norm group at year 8 of the Study and at the 82nd percentile of the norm group at year 20 of the Study. Thus these men had increased in their needs to accomplish difficult tasks and to solve difficult problems, but the major increment came about in the first eight years.

When asked about shifts upward on need for achievement in the Feedback Interview, several participants remarked that they were terribly naive and unsophisticated when they arrived at the job from the college campus and they didn't know what was expected of them. One man, who described himself as a "happy-go-lucky bumpkin" at the time of assessment, said "When they showed me my first organization chart, they might as well have shown me a laundry list." Once on the job, however, demands for results and competition influenced them toward achievement and accomplishment. As they achieved they experienced pleasure; thus intrinsic motivation developed. Their competence increased

their self-confidence, which in turn encouraged them to tackle more difficult problems.

SLIDE 9 Need for autonomy was another Edwards scale that increased significantly over time, but this has moved steadily upward over the 20 years. The mean score for the 82 men was at the 49th percentile of our norms at the time of assessment but had moved to the 65th percentile eight years later and to the 83rd percentile by year 20. A number of men attributed this change to greater independence on their jobs as they rose to higher levels of responsibility; they were leading others and making decisions. Others mentioned an increase in self-confidence and a growing awareness that they could disagree with superiors without grave consequences. A higher need for autonomy also characterized several men who were experiencing what might be called a mid-life crisis. These men had gone through value reorientations as they sensed that life was passing them by, and they frequently looked outside the job for ways to express themselves.

SLIDE 10 Another Edwards scale that showed an increase in mean score over time was need for aggression, or tendency to express hostility. The change from the 50th percentile at the original assessment to the 57th percentile eight years later was not statistically significant, but the increase between the 8th and 20th year to the 69th percentile was significant. Many men attributed this increase to job experiences, but what they learned varied. Some had become secure with their job knowledge and were more comfortable telling others they are wrong, others had learned they could get away with aggressing, and others had mimicked superiors. Still others felt their jobs required more aggressive behavior. Said one, "You have to attack opposing views to stay in the ball game."

SLIDE 11 One Edwards scale showed a significant drop over time for this group--the need for affiliation or friendships. Mean scores dropped the most during the

first eight years, from the 64th percentile to the 42nd percentile. By the 20th year their mean scores were at the 34th percentile. The men who acknowledged this shift generally indicated that their lives had become wound up with work and family in contrast to the more gregarious days of their youth.

The general picture from the changes on the Edwards scores is an increased hardening of the personality over time. In the first eight years they turned toward the challenge of work and away from socializing, and in the last 12 years their job experiences and resulting confidence had led them into a more aggressive approach. Throughout the 20 years, they felt an increasing need for independence and autonomy and had become their own men.

SLIDE 12 Although the men have apparently become tougher fighters over time, they are not so concerned with upward mobility, as shown by their responses to the Survey of Attitudes Toward Life. The score on this survey reflects a need for material evidence of personal progress, a high valuation of money and position, a striving to better oneself and get ahead, and an orientation toward future goals. The norms for this test, as well as for the GAMIN, which will be shown next, are 274 college recruits in the original assessment of the Management Progress Study. The 82 participants who have been through MPS:20 Phase I to date scored at the 50th percentile of the norm group at the original assessment. Eight years later their scores had dropped to the 32nd percentile, and 20 years later they dropped significantly further, to the 15th percentile.

In the Feedback Interview, many men responded to this drop in scores by indicating that their material needs have been satisfied. Also there was a realization on the part of many that they probably had plateaued in terms of management level and were unlikely to get another promotion. Though many claimed they didn't care about advancement any more, there was often an undertone

of "don't admit to striving for what you can't reach," a discernible attempt at cognitive dissonance reduction.

SLIDE 13 The last scale that showed a decline is the Masculinity scale from the GAMIN. The name of the scale is shown in quotation marks since it seems to measure a stereotype of masculine attitudes and interests, including a preference for science and math over music, art, and literature, a preference for rugged outdoor activities over quieter indoor hobbies,and a lack of fear of such atrocities as bugs, snakes, fire, burglars, and deep water. Although several men indicated development of more artistic interests with maturity, others referred to changing social expectations and a deliberate attempt to make themselves look "masculine" and, therefore, good at the original assessment.

SLIDE 14 Another new individual technique administered in Phase II of MPS:20 is a set of Time Lines. These ask the participant to outline briefly the significant

SLIDE 15 events in his life over the past 20 years. The Time Lines have space for happy or joyful events on the left side of the page under the smiling face and unhappy or stressful events on the right side under the sad face. The participants hit the highlights since they are not required to fill in the lines for every year.

There are three Time Lines in all. The first, Job and Career, refers to events that are primarily related to each man's job and career with the Bell System. Promotions, good and bad work assignments, and good and bad bosses are frequently mentioned on Time Line #1. Time Line #2 refers to

SLIDE 16 Home and Family, including spouse, children, parents, siblings, and other home-related issues. Typical entries include marriage and divorce, births and deaths, new homes and relocations, and problems with children. Difficulties with teenage children, from learning problems to delinquency and drug problems,

SLIDE 17 are a major concern of many of the participants. Time Line #3, called Self, refers to personally meaningful events that are not specifically either job or

family. These have included hobbies and community activities, self-development activities, health and physical condition, and emotional ups and downs.

The Time Lines are the first exercise administered at Phase II of the middle life assessment center, so that they can be discussed in the Feedback Interview. You may recall that these three areas are identical to the areas from which we extract meaningful incomplete sentence responses over the 20-year period, and the feedback interviewer tries to integrate the Time Lines with the appropriate sentence completions.

SLIDE 18 A third new individual technique designed for this assessment center is the Sunny/Stormy Exercise. Sunny and Stormy attempt to expand the Time Line idea

SLIDE 19 into the present tense and have the participants elaborate on the positive and negative influences on their lives within the last year or so. On the Sunny page they write in phrases that portray those aspects of their lives that

SLIDE 20 make them feel good, and on Stormy they describe what makes them feel bad. After filling in the lines on both drawings, participants are asked to select the six most significant factors, no more than four being selected from one drawing, and to write a short essay describing each. Responses to this exercise have been amazingly frank and revealing. The participants have written of their aggravations at work, such as reprimanding subordinates and EEO quotas, of their debts and what they want more money for, and what they argue with their wives about.

SLIDE 21 Another new technique is the Adult Development Incomplete Sentences Test, or ADIST. The incomplete sentence tests administered in Phase I had either general all-purpose stems or business-oriented stems. In Phase II we wanted to focus on the issues of mid-career and middle life, so we selected 10 pertinent content areas from which to generate appropriate sentence stems. A sample stem from each of the 10 areas is shown on the slide.

SLIDE 22

Stem	Category
Making ends meet	Financial
A new assignment	Career
Younger managers	Work relationships
When I look at my wife	Marriage
The problem with my children	Family
I become anxious when	Health
As the years go by	Aging
When I'm not working	Kicks
The news media	The World
My goals in life are	Life Goals

The ADIST was pre-tested before its initial use, and has undergone one revision in the last year. It presently consists of 106 sentence stems.

SLIDE 23

The last new individual technique is a projective test developed to complement the ADIST. We called this the Middlescent Male Picture Test, or MMPT. The test consists of eight drawings for which the subjects are asked to write stories. It parallels the Thematic Apperception Test, of course, but the TAT pictures did not fully suit our purposes for two reasons. First, they were not designed for people over 40, and the number of middle aged persons with whom the subject might identify are few. Second, some of the clothing and settings in the original TAT pictures are so outdated the participants complained about their not being relevant when they were administered in Phase I.

We began our quest for situations pertinent to middle-aged businessmen's lives by clipping cartoons from the New Yorker. We adapted some of these to our sample of telephone company managers, primarily by trimming waistlines and reducing the opulence or New Yorkishness of the surroundings, and adminis-

tered them to a pre-test sample. This experiment was a flop. Many subjects couldn't relate to the cartoon figures as real people, kept thinking they should be writing captions, and composed stories that tended to be short, bland and unrevealing. At this point we decided to hire an artist, whom we carefully instructed in several stages of the project to transform the cartoon scenes into drawings with enough depth that our subjects could project themselves inside. These eight pictures were the final outcome.

SLIDE 24 This drawing elicits stories about husband and wife about 2/3 of the time, which is what we expected. What they are discussing varies from adultery, the children's problems, and the time he spends at work, to "Oh my God, she's pregnant again!" The latter is notably a middle-aged problem.

SLIDE 25 A mentor-type relationship is often described here, as well as stories about the distresses of trying to guide a son's career, and boss-subordinate or co-worker relationships.

SLIDE 26 Again the participants usually identify a husband and wife in this picture, but the identity of the second woman varies as does the theme of the picture. Often the women are discussing the man's problems, which vary from retirement depression to being fired or physically ill. But other times <u>he</u> is ruminating on why he doesn't want to join the women, the reasons ranging from the intimacy of their conversation to the dullness of it.

SLIDE 27 Those who relate this picture to marriage often get into serious problems evoking the wife's anger or the husband's distress. Where work situations are described, and this drawing is deliberately amenable to either situation, the issue of women working with men is usually salient.

SLIDE 28 Responses to the "swinger" here are interesting--he may be envied as relaxed, carefree, and charming, or he may be an old fool, a drop-out from the competitive world, or a compulsive skirt-chaser. When the woman is the wife of

one of the "squares", the stories get even more involved.

SLIDE 29 Unpaid bills, the bureaucratic mess of modern life, news from dying relatives, or children flunking out of college or arrested in Mexico on a drug charge: middle-age is full of hazards.

SLIDE 30 The office has its hazards too-dismissal, embezzlement, being passed over for promotion, demotions, warnings, bad decisions, reprimands, unfair play, and the latest dismal salary plan.

SLIDE 31 And then you realize you've gotten older.

And now for a discussion of how information is developed from these new projective techniques as well as the ones readministered in Phase I, I'll turn the program over to our next speaker, Dr. Walter Katkovsky.

1977 APA Annual Convention
Slides accompanying presentations

An Assessment Center for Mid-Career and Middle Life

Individual Techniques

Ann Howard

American Telephone and Telegraph Company

1. Individual

   Techniques

2. Individual Techniques -
   Repeated (MPS:20 Phase I)

   Cognitive Tests:
   - SCAT aptitude
   - General Information Test

   Job Attitudes:
   - Management Questionnaire
   - Expectations Inventory

3. Individual Techniques -
   Repeated (MPS:20 Phase I)

   Personality/Motivation:
   - Edwards Personal Preference Schedule
   - Guilford-Martin Inventory of Factors GAMIN
   - Survey of Attitudes Toward Life
   - Opinion Questionnaire
   - Q Sort

4. Individual Techniques - Repeated (MPS:20 Phase I)

Projectives:
- Rotter Incomplete Sentences Blank
- Business Incomplete Sentences Test
- Thematic Apperception Test

5. Individual Techniques - New (MPS:20 Phase II)

- Feedback Interview

6. Preparation for Feedback Interview

- Summary of Interviews, Years 10-19
- Case Review Outline
- Projectives Report, MPS:20 Phase I
- Management Attitudes and Expectations Trends
- Self-Concept Changes and Highlights
  - Edwards Personal Preference Schedule
  - Guilford-Martin Inventory of Factors GAMIN
  - Survey of Attitudes Toward Life
- Sentence Completion Changes

7. (graph showing decline in General Management Attitude Scale)

8. (graph showing increase in achievement need:
- 59% assessment
- 79% reassessment
- 82% MPS:20

9. (graph showing increase in autonomy need:)
   49% assessment
   65% reassessment
   83% MPS:20

10. (graph showing increase in aggression need:)
   50% assessment
   57% reassessment
   69% MPS:20

11. (graph showing decreasing in affiliation need:)
   64% assessment
   42% reassessment
   34% MPS:20

12. (graph showing decrease in upward mobility need:)
   50% assessment
   32% reassessment
   15% MPS:20

13. (graph showing decrease in "Masculinity":)
   55% assessment
   59% reassessment
   42% MPS:20

14. Individual Techniques - New (MPS:20 Phase II)

- Feedback Interview
- Time Lines

15. (illustration of Time Line #1, Job and Career)

16. (illustration of Time Line #2, Home and Family)

17. (illustration of Time Line #3, Self)

18. Individual Techniques - New (MPS:20 Phase II)

- Feedback Interview
- Time Lines
- Sunny/Stormy Exercise

19. (illustration of Sunny)

20. (illustration of Stormy)

21. Individual Techniques - New (MPS:20 Phase II)

- Feedback Interview
- Time Lines
- Sunny/Stormy Exercise
- Adult Development Incomplete Sentences Test (ADIST)

22. Selected ADIST Stems

Making ends meet. . . . . .
A new assignment. . . . . .
Younger managers. . . . . .
When I look at my wife. . . . . .
The problem with my children. . . . . .
I become anxious when . . . . . .
As the years go by. . . . . .
When I'm not working. . . . . .
The news media. . . . . .
My goals in life are. . . . . .

23. Individual Techniques - New
(MPS:20 Phase II)

- Feedback Interview
- Time Lines
- Sunny/Stormy Exercise
- Adult Development Incomplete Sentences Test (ADIST)
- Middlescent Male Picture Test (MMPT)

24. (illustration of MMPT picture 71)

25. (illustration of MMPT picture 72)

26. (illustration of MMPT picture 73)

27. (illustration of MMPT picture 74)

28. (illustration of MMPT picture 75)

29. (illustration of MMPT picture 76)

30. (illustration of MMPT picture 77)

31 (illustration of MMPT picture 78)

An Assessment Center for Mid-Career and Middle Life

Preliminary Projective Test Findings

Walter Katkovsky

Northern Illinios University

The use of the projective exercises in the 20 year follow-up assessment was directed to two purposes; first, to contribute data for making the ratings and predictions of each man by the assessment staff; and second, to examine consistency over time, or changes in the men, on a number of ratings from the projective exercises which were administered in all three assessments (the original assessment, the reassessment eight years later, and the 20 year follow-up). Before discussing these purposes, I will describe the procedures followed in the use of the projective data and provide some examples.

In MPS:20, two separate reports were written on each man based on his responses to the projective exercises. The first report, which we refer to as Projectives-Part I, is based on three exercises: the Rotter Incomplete Sentences Blank, which is a widely used measure of adjustment-maladjustment based on the subject's completion of sentences that express his real feelings; the Business Incomplete Sentences Test, which is oriented toward career and management characteristics; and stories written to six cards of the Thematic Apperception Test. The participants of MPS:20 also had taken these three exercises in the original assessment and again in the reassessment; and the procedures followed in the 20 year follow-up were the same as those used in the earlier assessments. After reviewing the three protocols on a subject, I wrote a report integrating my hypotheses about the man's personality. The hypotheses formed relied heavily on the subject's self report, but also, inferences

were drawn based on his responses, and normative comparisons were made with others in the study. The approach followed in writing the reports was largely idiographic in that the most distinguishing characteristics of the man were cited. The following are excerpts from the Part I projective reports.

> The major characteristic suggested by this man's responses is a positive outlook toward life. He is easygoing and accepting of others, calm, flexible, satisfied with his life, and optimistic about the future. He maintains a good sense of humor, enjoys getting involved with new things, and notes that he "still thinks young". There are no indications of achievement drive or career motivation in his responses. He values job security, seems content (without elaborating) with his work situation, and maintains a compliant, deferent approach to superiors.
>
> This man is a serious, thoughtful person whose thinking centers around two themes, his work and his relationship with his wife. He appears to have high internal standards, attaches considerable importance to planning, organizing, considering all details involved in a problem, meeting deadlines, and deliberate actions which are based on careful analysis and self-control. These self-imposed standards and values create pressures and uncertainties in him. Thus he tends to experience self-doubts about his abilities and makes competitive self-comparisons with others. Based on his responses, my impression is that these anxieties and doubts promote, rather than lessen, his effectiveness on the job since his typical response to anxiety is to work harder.
>
> The general impression created by this man's responses is that of a person highly aware that he has reached middle age, that opportunities have passed him by, and that his current life is short of what he desires. Competition at work is anxiety provoking and he appears to have suppressed aspirations for further advancement. On the job he expects to be told what to do, and even though he often doens't like this, and prefers being in a position of "giving orders", he is compliant. He has a positive self-image and he is more likely to blame others than himself for disappointments and failures.
>
> The second report, Projectives-Part II was based on responses to the newly designed sentence completion task and story completion pictures described by Dr. Howard. Since the stimuli comprising the Part II exercises were selcted to reflect concerns and characteristics of middle age, the reports on on these exercises focused on common themes, viz., feelings and reactions to work, career progress, wife, children, financial matters, health recreational

activities, and general value orientation or philosophy of life. I will read a few excerpts from these reports to give you their flavor.

While this man is pleased with all aspects of his life, this is most true of his feelings about his wife, children and family life. He has a very close relationship with his wife and refers to her as "remarkable" and as "the greatest single influence in my life". He describes his children as "fine, stable individuals" and he is eager to set a "lifestyle to live by" for them just as he feels his parents did for him.

This man is experiencing considerable turmoil at present concerning himself and his relationships with others. In brief, he appears to have experienced an identity crisis in recent years in which he has questioned the conforming values and lifestyle he was leading and currently is developing a more independent, loose, existential, and hedonistic way of thinking and acting. Important aspects of the change are problems associated with his marriage and wife, preoccupation with extramarital affairs, rejection of a strong commitment to job and career, and the general attitude that he will consider himself and his enjoyment first and foremost.

On the topic of aging, this man acknowledges concerns, but in an impersonal way rather than applying them directly to himself. One of his stories notes that the character "bitterly resents growing old" and deceives himself rather than accepts this. He also has references in his sentences to a diminishing energy level, concern about possible illness, and to an "irregular" sleep pattern.

Now, let me return to the first purpose of the projective reports: to contribute data for the overall ratings and predictions made by the assessment staff for each man. The projective reports were read to the staff and they constituted one source of assessment data, which then was intergrated with other information by each staff member in making judgments for the ratings and predictions. Based on statistical analyses of the original assessment data, the dimensions most influenced by the Part I projective reports are those pertaining to motivation, such as need approval of peers and superiors, inner work standards, primacy of work, need for advancement, and need for a secure job (Grant, Katkovsky and

Bray, 1967). The Part II reports contribute to the ratings of many of the MPS:20 dimensions dealing with mid life concerns and problems.

The second purpose of the projective data in MPS:20 was to investigate changes or consistency in the men over time on ratings made from the projective reports. Three reports on responses to the same projective exercises are available on each man, with each report representing a different time period in his life, 20 years before, 12 years before, and the present.

To investigate changes and consistency over time, the reports were coded on nine variables by two person working independently using a rating guide. This was done about nine years ago for the assessment and reassessment projective reports, and recently the same scales were applied to the MPS:20 Part I reports. The nine variables and their definitions are presented in Slide 1.

Slide 2 presents the means for the nine variables at each of the three assessments and the intercorrelations between time intervals. (See attachment). These data are on only 31 subjects; those for whom projective reports have been completed. As can be seen, relatively little change over time was found in the means of the nine variables. The largest change was on achievement motivation, where there was a significant decrease from assessment to reassessment, and this drop was maintained in the 20 year follow-up. You will recall that Dr. Howard presented findings on the Edwards Personal Preference Schedule indicating an increase in need achievement. This apparent discrepancy between the findings from the projective ratings and those on the Personal Preference Schedule probably reflect different referents for achievement motivation on the two measures. Whereas the measure of achievement need on the Personal Preference Schedule stresses the self-reported desire to create or accomplish something of significance, the projectives achievement

ratings include aspirations for upward mobility, represented by the desire for advancement, status and recognition, as well as imagery depicting hard work and effort for the accomplishment of goals. The decrease in achievement motivation on the projectives is consistent with the decreased scores on the Survey of Attitudes Toward Life reported by Dr. Howard.

Two other significant changes based on the projective ratings occurred between the reassessment and the 20 year follow-up: a decrease in dependence and in general adjustment.

The correlations of projective ratings between the three time periods also are shown on the slide. The greatest degree of consistency was found between the reassessment and MPS:20, which involved a span of 12 years, and the least consistency over the eight-year interval between the assessment and reassessment. Apparently the men changed the most during the early years of the study, probably because of developments occurring in their careers, marriages, and families during this time. The consistency between the reassessment and MPS:20 points to the stability of many personality characteristics during the middle years of life. The characteristics with the highest degree of stability from reassessment to MPS:20 fall into two groups: (1) those dealing with overall adjustment, including self-confidence and optimism, and (2) those dealing with career orientation, including achievement motivation and interest in assuming leadership responsibilities.

Another way of examining changes in the men is to identify those individuals who increased significantly, those who decreased, and those who did not change. This was done by establishing a criterion of change of three or more rating points between assessments (with 10 points as maximum). Slide 3 indicates the number of men who change significantly either up or down on each projective variable between the different assessments. The variables on which the largest number of men decreased

were achievement motivation and work and career orientation, with 17 individuals dropping significantly. The variable on which the largest number of men increased was interest in a leadership role, with 14 individuals increasing significantly. Thus, in this limited sample, career-orientation and motivation to achieve were more important to most individuals earlier in their careers than later. At the same time, almost half of the men became more involved with fulfilling leadership responsibilities, probably because most of these men did in fact hold positions that included supervisory responsibilities.

An important question concerning these changes is, are they associated with events in the lives of the individuals? Analyses to be done in the future will deal with this question by relating personality changes to such factors as career progress, income, job attitudes, and crises in the personal lives of the men, such as illness, death of loved ones, and marital problems. At this early point in the 20 year follow-up, it was possible to conduct a preliminary analysis of the relationship between personality changes and data from the Part II projective reports. For this purpose, 14 scales were developed and applied to the Projectives II reports. These are presented in Slide 4.

In brief, the 14 ratings pertain to the individual's adjustment or maladjustment in distinctive areas of life including job, career, marriage, health, aging, etc. Adjustment was broadly defined as happiness, satisfaction, coping skills, and optimism concerning that area of life; and maladjustment was defined as unhappiness, frustrations and anxieties about the area of life.

By examining possible differences in the ratings of the Part II reports for men who showed significant personality changes from those who did not, we can determine which aspects of their lives appear most

involved in the changes.

Three groups of subjects were identified based on their change scores to three of the variables rated on the Part I reports: self-confidence, optimism, and adjustment. Those subjects who increased by three or more points on any one of these dimensions were designated "the increased group". Those who dropped three or more points on any one of these dimensions were designated "the decreased group". These two groups were compared with a "no change group" on the 14 variables from the Part II reports. The means and F ratios are presented in Slide 5.

The higher the score, the higher the adjustment on the Part II projectives. Those who increased in confidence and adjustment were rated higher in adjustment than those who decreased on eight of the Part II variables, viz., in job activities, general career, financial status, physical and psychological health, values, and self-concept. These findings indicate that changes in adjustment status are closely associated with work and the way the individual thinks about himself. Interestingly, however, problems and dissatisfactions concerning advancement, marriage and family were not associated with changes in the projective ratings of overall adjustment over the years of the study.

An additional set of preliminary analyses that have been carried out on the 31 men consisted of intercorrelating the 14 adjustment ratings based on the Part II projective reports with ratings based on the initial assessment projective reports 20 years earlier. Time permits the presentation of only a couple of the findings.

One finding of interest was a correlation of .52 between achievement motivation in the initial assessment and adjustment to job activities 20 years later. Perhaps the men with high achievement drive were more likely to seek and find rewarding job activities than those low in achievement need.

Another significant result was a correlation of .56 between affiliation needs in the initial assessment and adjustment to one's children 20 years later. Those men with a high need for affiliation probably were more motivated to do whatever was necessary to establish close, satisfying relationships with their children than those low in affiliation.

In closing, the point should be emphasized that these data are preliminary and the findings should be viewed as tentative. The number of subjects is small, and it is possible that distinctive factors were operating with this sample of men that are not present in the total sample. The additional data that will be obtained from participants of the study in other operating companies will enable us to determine the generality of the findings I have reported.

Now Dr. Rychlak will speak on the predictions for individuals.

References

Grant, D.L., Katkovsky, W., and Bray, D. Contributions of projective techniques to assessment of management potential. Journal of Applied Psychology, 51, 3, 226-232.

SLIDE 1

Dimensions and Definitions Rated
From Projective Reports, Part I

1. Achievement Motivation
   How ambitious, motivated, and interested in advancement and success is he?

2. Self-Confidence
   How confident is he that he will succeed in his work? To what extent does he exhibit self-doubts and anxieties concerning success?

3. Work and Career Orientation
   How important is work in this man's life compared with other things, such as family and recreation? How much satisfaction does he get from his job compared with other things in life?

4. Dependence
   To what extent is he described as needing or seeking help, advice, direction, and encouragement from others?

5. Affiliation
   How interested is he in being liked and accepted by others, being a part of groups, helping others, and avoiding arguments and friction with others? To what extent does he participate in group situations and how outgoing is he?

6. Optimism-Pessimism
   How optimistic or pessimistic is he about life in general? How positively or negatively does he react to most of his experiences? How satisfied or dissatisfied is he in general?

7. Willingness to Assume a Leadership Role
   How readily will he make decisions and accept leadership or supervisory responsibility? How strong are his dominance or leadership needs?

8. Willingness to Accept a Subordinate Role
   How willing is he to act as a follower or subordinate in his relationships with others? How suggestible and submissive is he?

9. General Adjustment
   To what extent does he indicate good adjustment (high self-confidence, ability to adapt to difficult situations and accept frustrations) or poor adjustment (low self-confidence, insecurity, stress or anxiety reactions, emotional conflict, and problems)?

SLIDE 2

Means and Correlations of Ratings from Projective Reports: Assessment, Reassessment, and MPS:20

	Means			t-tests			Correlations		
Variable	Assessment	Reassessment	MPS:20	Assessment-Reassessment	Reassessment-MPS:20	Assessment-MPS:20	1956-64	1964-76	1956-76
Achievement Motivation	7.00	5.77	5.97	2.43*	.53	2.99**	.14	.57**	.59**
Self Confidence	6.06	6.10	6.10	.08	.00	.10	.34*	.67**	.55**
Work or Career Orientation	6.32	5.68	5.87	1.17	.44	1.03	.06	.39*	.25
Dependence	6.32	7.00	6.16	1.83	2.09*	.38	.28	.34*	.37*
Affiliation	6.52	6.58	6.13	.13	.94	.74	.18	.13	.03
Optimism-Pessimism	6.23	6.71	6.55	1.41	.54	.74	.42**	.55**	.16
Leadership Role	6.26	5.97	6.26	.70	.76	.00	.30*	.39*	.31*
Subordinate Role	5.87	6.23	5.90	.82	.70	.07	.13	.14	.30*
General Adjustment	6.06	6.52	5.74	1.28	2.58**	.82	.26	.50**	.20

* Significant .05 level (2-tailed)
** Significant .01 level

* Significant .05 level (1-tailed)
** Significant .01 level

SLIDE 3

Number of Men Who Increased and Decreased
By Three or More Points on Projective Dimensions Over Time

Dimension	Assessment - Reassessment		Assessment - 20 Year Follow Up		Reassessment - 20 Year Follow Up	
	Increased	Decreased	Increased	Decreased	Increased	Decreased
Achievement	2	9	0	5	4	3
Self Confidence	4	4	2	4	1	1
Work Orientation	5	8	3	7	4	2
Dependence	5	2	3	4	0	6
Affiliation	5	4	4	7	3	7
Optimism-Pessimism	4	1	3	2	1	2
Leadership Role	4	5	5	3	5	1
Subordinate Role	5	6	3	4	3	6
General Adjustment	5	2	1	5	1	3

SLIDE 4

Dimensions Rated
From MPS:20 Projective Reports, Part II

Adjustment (Happiness, contentment, satisfaction, confidence, optimism, and effective coping behavior) vs.

Maladjustment (Unhappiness, frustrations, anxieties, dissatisfactions, low confidence, pessimism, and ineffective coping behavior)

1. Work or Job Activities
2. Advancement, Career Progress
3. General Career (Includes 1 and 2 above, plus feelings about retirement)
4. Financial, Material Status
5. Wife and Marriage
6. Children
7. General Family (Includes 5 and 6 above, plus feelings about parents)
8. Physical Condition and Health
9. Psychological Condition
10. Aging
11. Recreation and Leisure
12. Values, Beliefs and Goals
13. General Self-Concept (Includes 8, 9, 10, 11, and 12 above, plus other self references)
14. Overall

SLIDE 5

Means and F Ratios on MPS:20 Projective Ratings for Subjects Who Increased, Decreased and Did not Change in Self Confidence, Optimism and Adjustment

MPS:20 Projectives Variable	N=9 Increased	N=7 Decreased	N=15 No Change	F Ratio	Duncan
Work of Job Activities	7.67	4.71	6.67	3.38*	Increased> Decreased
Advancement, Career Progress	6.33	4.00	5.33	2.85	
General Career	6.89	4.29	5.87	4.57**	Increased> Decreased
Financial, Material Status	6.22	3.71	6.40	4.65**	Increased> Decreased No Change> Decreased
Wife and Marriage	7.56	5.43	7.40	1.35	
Children	7.11	6.43	7.73	.86	
General Family	7.56	5.29	7.47	2.46	
Physical Condition & Health	6.89	4.29	6.27	3.98**	Increased> Decreased; No Change> Decreased
Psychological Condition	7.00	3.57	6.60	9.58**	Increased> Decreased; No Change> Decreased
Aging	6.44	5.57	6.20	.38	
Recreation and Leisure	7.00	7.29	7.00	.04	
Values, Beliefs and Goals	7.78	4.14	7.40	6.53**	Increased> Decreased; No Change> Decreased
General Self Concept	7.00	4.43	6.27	6.73**	Increased> Decreased; No Change> Decreased
Overall	6.89	4.14	6.47	6.55**	Increased> Decreased; No Change> Decreased

* .05 F Probability
** .01 F Probability

Predictions for Individuals

Joseph F. Rychlak

Purdue University

My role on the symposium is to demonstrate through individual case histories how it is that we arrive at our decisions on the Overall Assessment Ratings. Before we turn to the specifics of this task, however, a few words should be devoted to the reasons for making these ratings in the first place.

I am sure that you can appreciate that as we staff members are making our ratings on the 47 MPS dimensions we are also forming some global expectations about the future of the man in question. This is undoubtedly a continuing reflection of our total understanding of his personality, the further elaboration of a theorotype which we could not dismiss in our considerations even if the assessment procedure did not call for over-all ratings to be made.

In our earlier work we used this over-all impression to make predictions concerning the man's future job success. For example, we predicted whether he would stay with the Telephone Company or leave, and, assuming that he did stay, whether he would reach middle management earlier than the average time it took his peers to reach it, and so on. We were fairly successful in picking out those men who would succeed, based on these global ratings. Two-thirds of those men whom we picked as likely to be promoted in eight years were in fact promoted, whereas only one third of those we suggested would not reach middle management in this time frame actually did so (Bray, Campbell, & Grant, 1974, p. 69).

But now, what sorts of global questions do we ask ourselves in a middle-life assessment? We wanted such questions to have clear relevance for the

understanding of a significant period of the human being's life. It would also be nice if we could --in principle, if not in reality-- check our answers against a concrete criterion at some point in the future. Since it is not out of the question to think that we might interview these subjects as late as the year 2000, we did not let our scientific inclinations for the reality consideration inhibit our assessment zeal concerning the scope of the questions which might be put. I think you will find that the seven questions which we finally settled on are the sorts of things you would spontaneously wonder about, in thinking about the future life of a sample of relatively successful business managers, moving into middle age.

In hopes of bringing these questions to life, I would like to first give you two brief case histories, based on actual data slightly revised to protect subject anonymity. After we have reviewed these cases I will then run through the seven questions and give you our thinking in light of the MPS-20 follow-up that we conducted on these two individuals.

The first case is that of Ben. As a young man fresh out of college, Ben came to the Telephone Company thanks to the fact that two of his uncles had worked there, one of whom achieved a fairly high-level position in management. Although not extremely ambitious, Ben had a high opinion of his abilities to manage people. He was physically impressive, being both nice looking and a natural athlete. Initially, his management style was person-centered, but over the years he became increasingly problem-centered and even called himself "hard nosed" at one point. He was always rather independent and on a few occasions had confrontations with his superiors. He did a technically competent job, and achieved the second level of management before his peers. His subsequent promotion to third level occurred at a high-average rate. That is, he was not exactly a "hot shot" but he did seem to be staying out ahead of the pack somewhat. As it turned out, he was never to go any further in the manage-

ment hierarchy.

Shortly after having reached third level Ben experienced an upheaval in his personal life, which culminated in a divorce. The central problem of his life apparently stemmed from a dissatisfaction with his style of home life. He had two children, but did not feel personally fulfilled in the role of "father and provider." He needed more time to himself, and that included time he was devoting to the job. He continued to support his wife and children after the divorce was finalized, but his life style changed dramatically. He became much more recreational, took flying lessons, played a lot of golf, tennis, and engaged in water sports of all types. He dated widely, usually with women much younger than he, and seemed to be developing the role of "committed bachelor" to its finer points when --quite unexpectedly-- he married a woman not much younger than he was, with the understanding that they would not cultivate a family or involve themselves too much in material commitments such as homes, extensive furniture and the like. In the meantime, Ben's job performance began to level off. He worked the minimum hours required on his job assignements, refused transfers to better positions, and talked of taking an early retirement at age 55 --hopefully to go into a small business such as renting boats and selling fishing supplies at a resort area "out West."

In the MPS-20 assessment Ben presented the following picture: Low needs for achievement, endurance, and aggression. High needs for autonomy, change, and heterosexuality. Advancement needs were quite low. In the group problems he did an average job, but tended to overrate his actual performance. He was technically competent but not a true leader. His insights into the group problems were superficial. His management attitude scales, which had begun in the upper ranges at the outset of his career, steadily declined so that by the time of MPS-20 he was at an all time low. When asked, he attributed this to his dramatic shift in value orientation following his divorce. Interestingly, both objective and projective test data suggested that Ben was suffering from

an underlying confidence problem. Upon further discussion it was found that he was easily upset by life's disruptions, and too often found himself on the brink of tears. The impression of a man drifting through life, taking such pleasures as he could as they arose, was strongly suggested by the projective test data. There was good reason to believe that Ben had more confusion and conflict over his career performance than he admitted to consciously. What is more, there were indications that he was becoming progressively dissatisfied in his second marriage and that he once again longed to be free of marital bonds.

Our second case is that of Jed. Reared in a small town atmosphere, Jed came to the Telephone Company following engineering college because he had fondly recalled the repairmen who worked around town when he was a child. His image of the Company was positive and he was sure that if one did a good job he could get ahead in it. He never had specific aspirations, but took the matter of promotion "one step at a time." As an engineer, he had a strong interest in the technical aspects of the job and did the best he could in his supervisory role. He left the matter of promotion to his bosses and took them as they came along. He was a shy, easy-going person who came off best in one-to-one contacts. This detracted from his effectiveness as a supervisor of large groups, but thanks in large measure to his good intellectual ability he met the challenges which arose and gradually reached the third level in management in what might be termed a low-average rate of advancement. He never complained about his career, and sustained a high commitment to the job throughout our period of study.

He married later than our average subject, eventually fathering four children. He was a kind and considerate father, but not as emotionally close to his children as was the wife. On balance, we always believed that Jed obtained as much satisfaction in life from his job as he did from his home life. As a sentimental person, Jed like to retain old friendships, and his home town remained a major focus of interest. He took his family to visit his parents

whenever possible, and cultivated boyhood relationships in the process. He also tried to have his job assignment located near his home town. Jed was quite active in his church, but he did not become involved in community affairs otherwise. He managed his money well, made some good investments, and seemed especially devoted to his wife, whom he deferred to regularly. Jed loved the outdoors, and there is nothing more enjoyable to him than going on a fishing or hunting trip with his boyhood cronies, or, in recent years, with his eldest son.

In the MPS:20 Assessment Jed presented the following picture: High needs for deference, succorance and endurance. Low needs for autonomy, change and aggression. A good intellectual ability, good scores there. Advancement needs were high average. Jed played the role of a follower in the group problems appearing rather perplexed and overawed by some of the questions put to him although he tried his best. His management attitude scales had fallen off slightly from the very high scores that he had at the beginning of his career but he still had a decidedly positive view of the company as of MPS:20. Projective testing revealed the personality of a rather uncomplicated accepting person who was at times stubborn and independent but generally self-accepting and quite willing to adapt himself to the realities and changing circumstances of life.

This completes our brief survey of the cases of Ben and Jed. Both men were at the third level of management during the MPS-20 assessment period, and after we had rated them on the 47 dimensions we put seven Overall Assessment Rating questions to each case history. I will go through the questions with you, trying to give some idea of the basis for our judgments of these individuals, as well as the general trends our ratings have been taking for one of the Operating Companies we have already finished assessing. I should

point out that, in addition to making a rating on each of these questions the staff assessor has the option of adding a comment as well, filling in the reasons for his decision. Thus, we do not attempt to resolve disagreements on these ratings when they are more than two points apart. The aim here is to get a global portrait across on the record, and sometimes there is equal justification for a high and/or a lower score granting certain assumptions. We want to get these various assumptions on the record if at all possible. The staff discusses their differences while a recording machine is activated. These discussions are subsequently typed up and become a part of the permanent record.

1. Will this man's job performance and commitment to the company change between now and retirement?

The answer is scored on a five-point scale ranging from "decrease significantly" (1) to "increase significantly" (5). As you might suspect, our Mean rating for Ben was a 2 and for Jed we gave a 3.75. Our preliminary ratings on the MPS dimensions of Inner Work Standards, Primacy of Work, Bell System Value Orientation, Need for Superior Approval, and Job Satisfaction all entered into this global decision. Ben ranged very low on these dimensions and Jed was quite high. Though both men had probably reached their terminal level in the Company, Ben was settling back into a routine job effort whereas Jed was still very much interested in maximizing the job he was doing. When we look at the Company as a whole, our Mean rating of 2.92 suggests that we did not expect too many job performances to change between now and retirement (the Standard Deviation here was .46).

2. Will this man retire early [i. e., before age 65]?

This is a yes-no decision, but we also try to predict the age span during which an early retirement might occur; i. e., 50-54, 55-59, or 60-64. The MPS dimensions of Retirement Proneness, Need for Security, Ability to Delay Gratification, Absence of Financial Worries, and Avocational Interest are

most likely to enter into this projection. Job and Career Satisfactions are also important considerations. Although Ben had financial worries, we tended to believe that his essentially egocentric life orientation would militate against plugging along at a job simply to make more money after he had attained an assured income. His security needs were also low. Jed, on the other hand, was very security oriented. His children were younger than Ben's, as Jed had married later in life. Furthermore, he enjoyed his work and career immensely. Thus, the staff was unanimous in suggesting that Ben would retire at the earliest possible opportunity (age 50-54) but that Jed would not.

Obviously, this is the easiest of our predictions to deal with at the criterion end. Thus far, we have tended to see most of our men retiring before age 65, with the greatest incidence expected to be around age 60.

3. How well will this man adjust to retirement?

This is a five-point rating, running from "adjusting very poorly" (1) to "doing very well" (5) in the retirement years. This question gets at the kind of activities a retired person becomes involved in to fill the life time commitments he had earlier devoted to work. Will he be able to find meaning in a routine outside of the job? The MPS dimensions of Range of Interests, Primacy of Work, Energy, Inner Work Standards, and Involvement all contribute significantly to this global judgment. We must also consider such factors as Escapism and Avocational Interests. The staff tended to agree that Jed would adjust well to retirement; two staff members gave him ratings of "4" and two gave him "5" scorings. His range of interests was narrow and his primacy of work as compared to family was about on a par. The comment recorded is that he seems the type to adjust well to changing circumstances and has few demands on life. Since he will presumably retire at age 65, by that time in life we do not expect him to have any problems filling his time with chores around the house, fishing trips, gardening, and so on.

Ben, on the other hand, presented the staff with some difficulty in the ratings. One staff member gave him a "1," two gave him "2" ratings, and the remaining staff member gave him a "4." The low scorers suggested that as he ages and loses his athletic facility he will find fewer things to escape into as diversions, and then some of the underlying tension and anxiety will emerge as a dissatisfaction with the inactivity of retirement. The high scorer believed that Ben was open to so many alternatives that even though he might have personal adjustments in life his attitude toward retirement per se would signify freedom and hence be a positive factor in his life.

Turning to the scorings on this dimension for the Company as a whole, we have a Mean of 3.66 and a Standard Deviation of 1.08. It would appear that we found our subjects psychologically well-prepared for the retirement years of life.

4. How satisfied with his career with this man feel when it is over?

This is a five-point rating of from "very dissatisfied" (1) to "very satisfied"(5). In this case we are focusing on the man's attitude concerning his total work experience, what he felt was accomplished, the things he might have learned, and the level of job challenge he took on --all those things which enter into what is termed a "career" in business. The MPS dimensions of importance here include Self-Objectivity, Need for Advancement, Realism of Expectations, Job and Career Satisfactions, and Bell System Value Orientation. We all agreed that Jed rated a "5" on this dimension. The management level he attained was personally gratifying and he had extremely high regards for the challenge and tempo of his career experiences. He knew his strengths and weaknesses as a manager, and sincerely believed that he had given his best to the Company in return for many fine rewards.

The Mean rating for Ben on this question was 1.75 as one staff member gave him a "1" and the other three gave him scores of "2". The feeling here was that Ben's uncles equaled or exceeded his career attainment, and this

would not be lost on him in evaluating his progress. And even granting his change in life values, there was enough conflict in the record to suggest that Ben harbored some doubts about his real motivations. His very negative attitude toward the Company would surely be reflected in any retrospective assessments of his career as a Telephone Company manager. Our ratings for the Operating Company as a whole equaled the Mean value of 3.40 with a Standard Deviation of 1.12. Hence, we believed that there would be a high-average level of career satisfaction in this group.

5. How satisfied with his life will this man feel as he reaches old age?

This was also a five-point rating running from "very dissatisfied" (1) to "very satisfied" (5). We are at a more abstract level now, focusing on the subject as a "person." MPS dimensions of significance here would include Social Objectivity, Cynicism, Goal Flexibility, Self-Development, and Happiness. Here again, Jed proved easy to rate with all four staff members giving him a rating of "5." Ben, on the other hand, received two scores of "1," a score of "2," and a score of "4" for a Mean rating of 2. The high scorer suggested that due to Ben's willingness to alter his goals in life and to do different things he will have a sense of having given life a "good run" once he reaches old age. Ben will tend to blame others for his setbacks and he might even move through another marital partnership before reaching an advanced age. Most of the staff believed that he would become increasingly embittered and conflict-laden with age, particularly since he seemed highly concerned about aging and the possibility of losing his athletic vigor.

For the Company as a whole we gave the Mean rating of 3.52 with a Standard Deviation of 1.21, suggesting a high-average sense of happiness with life among our sample. This is obviously going to be the most difficult criterion to delineate in the future, and, as the staff has jokingly agreed, it would be best accomplished via a death-bed summation by the man in question.

6. Will this man experience a critical disturbance in his personal adjustment between now and retirement?

This is a yes-no decision, and what we are after here is not only turbulent upsets on the order of a neurosis, but also the likelihood that a man will confront in the future some kind of challenge to his personal identity, brought on by circumstances, other people in his life orbit, or the onslaughts of the physical aging process. Some MPS dimensions of importance here might be Stability of Marriage, Marital Satisfaction, Absence of Familial Worries, Escapism, Adjustment, Feelings of Crisis, Concern with Health and Aging, and Selfishness. The staff agreed that Jed would not experience such a critical disturbance but that Ben would do so. In the comments on Ben it was pointed out that he was presently in the throes of a mid-life crisis and that this was not likely to end in the immediate future. A conjecture on Ben advanced independently by two staff members was that he could conceivably develop a drinking problem in the future.

The ratings on the Company as a whole reflected a Mean score of 1.66 where 3 is a "yes" vote and 1 is a "no" vote. The Standard Deviation here was .86. This suggests a fairly stable future for the group, but I must say that, personally, I have nevertheless been surprised at the number of middle-aged crises which seems to be cropping up in our subjects to date.

7. Will this man experience a significant value reorientation between now and retirement?

This is also a yes-no rating, and what we are after here is the sort of thing being tapped by the MPS dimensions of Conservatism, Religiosity, Cynicism, Social Objectivity, Bell System Value Orientation, and Goal Flexibility. We are interested here in projecting whether the man will shift his basic value system in the future, whether or not he experiences a period of conflict in the future. We agreed that neither Jed nor Ben would alter their values in the future, but this was modified by the fact that we believed Ben had already experienced this change.

For the Operating Company as a whole on this question we scored a Mean value of 1.16 where "no" is a 1 and "yes" is a 3. The Standard Deviation here was .32. Obviously, we did not think there would be much change in values among our subjects in this first Company to be assessed.

This completes my presentation. I hope that it has helped you to get a more dynamic sense of the task involved. In closing, I would just like to mention that a few staff members thought it would also be interesting to predict just where our subjects will end up after death --whether "up there" or "down there"-- as well as the relative adjustment achieved in this eternal set of circumstances. When it was first proposed one evening over martinis we all agreed that the idea had merit, but on the "morning after" we unanimously and independently decided that there was a serious flaw in the plan. That is, we were not confident that MPS staff members will populate both places, and since we insist on gathering our own data, we could never accept evidence on a man's adjustment to his nether region as valid unless it was based on a rating done by our core staff.

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Comments by Discussant

An Assessment Center for Mid-Career and Middle Life

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There are two reasons I was glad to be asked to be a discussant for this symposium. The first is that I am interested in the Management Progress Study as the research program that has served as a model for assessment centers. I think it is probably the most outstanding organizational research program we've had in this field for many years, and I wanted to add my voice to the accolades that Dr. Bray received yesterday. The second reason I was fascinated and really quite glad is because I, myself, have become very much interested in this area and I was delighted to hear that AT&T was also working on these matters. Listening to and reading these papers, I think we have another example of what will be, I think, an outstanding program over the years. Unlike Dr. Rychlak, however, I'm not surprised by the number of people going through mid-life crises. I run into it all the time, and much of my own research and writing over the last couple of years has focused in this area. I think we are going through a major reconstruction of work attitudes and personal attitudes in our society and I think the AT&T data, such as it is (and it's relatively limited so far, obviously), is picking up some of this.

In terms of the actual papers themselves and the data that's been presented, my comments obviously will have to be brief because they're just in the preliminary stages. First, I think we have to be more sensitive to the

kinds of measuring instruments that are being used and the discrepancies between them. I'm not so certain that the explanations for the difference between the projective tests and the objective tests are all that easily explained. The problem is that much reliance is being based on tests whose worth is still a matter of considerable controversy. I think this has to be a matter of concern and interest.

Another problem is the data showing a hardening of these individuals as they reach middle age. Much discussion, much clinical data (although I don't know how good these data are, although there is some from the work of Levinson's group and Gould's group) suggests a softening of many men when they reach middle age. They become more affiliation-oriented and seem to reach a point of saying, "You know, I've been working all my life, now I want to be with people." It strikes me this is more affiliation rather than less affiliation. Obviously, there is a discrepancy here. I don't know which data I'm going to rely on but I think there are questions here that I'd like to see looked at. What do we mean by a "hardening?" Is it some kind of a methodological artifact? Are we talking about good data or a different kind of sample? I don't know. I'd like to look at it but I think that the question of instruments, discrepancy between instruments has to be looked at even before these content issues.

Relating tothis question also are some of the findings in Dr. Katkovsky's data. One result, in particular, which bothers me and which I was somewhat incredulous to hear stems from the research developing on the stress scales. This was the lack of correlation between marital and family problems and adjustment. I would worry about this one. I can certainly hear a lot of clinicians and therapists

being astounded by that one and I'm kind of astounded too. I'd take a look at that one. I frankly find it hard to conceive of a lack of relationship between such an event in one's life as marital and family problems and personal adjustment. The stress scales that are being used now that are showing different levels of stress in one's life certainly would not agree with this kind of finding. I'd take another look at this finding. It's one that I think should be a matter of some concern.

The last of my comments of a major nature concerns the overall stress in the research program on personological and personal history data. I suspect I'm more of a social psychologist in this sense but I am glad to see the group now starting to pick up experiential factors, both life experience and organizational experience, as effects on and as antecedent factors influencing the kinds of adjustment and changes that take place. I am sorry that it wasn't done earlier; I'm glad its being done now to the extent that it is being done. I would like to see even more concern paid the assessment of environmental variables and to the assessment of the organizational and life experience variables as the very outstanstanding concern that's been paid to the personality variables. I think these are very crucial kinds of data. I'm glad they're being picked up and I'd like to see an even more increased amount of attention paid to this.

Last, a couple of minor remarks. I think that this research illustrates the terrible headache in any kind of longitudinal research and one that I certainly am not going to resolve. How do we define who changes and what do we mean by change? Dr. Katkovsky uses classification scores of 3 points higher and 3 points lower. I'm not sure about the reliability of such a classification system.

I'm not sure of how one really partials out the regression effects and all these other kinds of things that drive us crazy when we try to do longitudinal research but they're certainly here also. I'd like to see some attention paid to these matters. Finally, without further ado, I like the research, I think it is outstanding, I was fascinated by the new projective measures they are developing, I think they look exciting to me. I just wish them good luck. I think it's a marvelous project.